WHAT IS CLAIMED IS:

1. A method of reducing show-through error in duplex printing comprising:

determining at least one of sizes and locations of a first side image and a second side image of a duplex-printed image recording medium;

determining an amount of residual magnification error based on the determined at least one of sizes and locations, the residual magnification error related to shrinkage of the image recording medium; and

determining margin shifts that reduce show-through error due to at least the residual magnification error based on the determined amount of residual magnification error;

wherein the determined margin shifts can be subsequently applied during printing of image data to reduce show-through error.

2. The method of claim 1, wherein determining the at least one of sizes and locations comprises:

printing the first side image on a first side of the image recording medium and the second side image on a second side of the image recording medium;

obtaining at least one of sizes and locations by measuring the first side image and the second side image.

3. The method of claim 2, further comprising analyzing the at least one of sizes and locations.

4. The method of claim 3, further comprising adjusting at least one of a pixel clock frequency and a photoreceptor speed based on the analyzed at least one of sizes and locations.

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5. A control system for controlling a duplex printing device, the device having a raster optical scanner, a photoreceptor belt or drum and a fuser, comprising:

an input/output interface through which at least one input measurement can be input to the control system;

a residual magnification error determining circuit or routine that determines a residual magnification error based on the at least one input measurement, the residual magnification error related to shrinkage of an image recording medium;

a margin shift determining circuit or routine that determines margin shifts based on the at least one input measurement and the determined residual magnification error; and

a margin shift applying circuit or routine that applies the determined margin shifts during a subsequent duplex printing operation to reduce show-through error.

6. The control system of claim 5, wherein the setup circuit or routine adjusts pixel clock frequency and photoreceptor speed based on the determined magnification error.

7. The control system of claim 5, wherein the residual magnification error determining circuit or routine determines a first side magnification error based on the at least one input measurement.

8. The control system of claim 5, wherein the margin shift determining circuit or routine determines a registration error based on the at least one input measurement, and the residual magnification error determined by the residual magnification determining circuit or routine.

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9. The control system of claim 5, further comprising a magnification error circuit or routine that determines a magnification error based on at least one input measurement, wherein the residual magnification error determining circuit or routine determines a residual magnification error based on the determined magnification error and the at least one input measurements.